Cengage Learning

PRACTICAL MATH APPLICATIONS

The text begins with a comprehensive review of the basic math functions and progresses to fractions and decimals. Once the students have mastered the basics, they are introduced to practical applications that develop critical thinking skills. These applications include bank records, purchasing and pricing merchandise, payroll, taxes, insurance, consumer credit, and interest (simple and compound).

Teacher Edition

9780538727730 $61.25
Annotated Instructor's Edition, Practical Math Applications

Essential Items

Ancillary Items

Free with Purchase items

ISBN
9780538727723

Contract Price
$51.00

Grade
9,10,11,12

TYPE
P1

Copyright
2005

Author
Burton/ Shelton

Edition
2nd

Content
Business Math

Readability
8.6

Accessibility
Nimas

Research

Provided by the Publisher

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PRACTICAL MATH APPLICATIONS			
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Copyright - 2005	Edition - 2nd	Readability - 8.6	
Course - Business Math		Grade(s) - 9,10,11,12	
Teacher Edition ISBN if applicable 9780538727730			

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Overall Recommendation: **Recommended as BASAL**

if this box is not checked, the evaluators have chosen NOT recommend as basal

Overall Strengths, Weaknesses, Comments:

The text is very well set up and organized and would be a great fourth year math course emphasizing skills all students need. Because of the nature of the course, the only Core Content area addressed in any depth is Number Concepts. The text, however, misses the opportunity to include the use of any business related technology. The course would be greatly enhanced by the use of said technology.

NIMAC Accessibility	N
Ancillary	Yes
Free with Purchase	Yes
Research	No

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CRITERIA

This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations **Strong Evidence**

Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 5 Big Ideas of mathematics to the following extent:	
a) Number Properties and Operations	Strong Evidence
b) Measurement	Little or No Evidence
c) Geometry	Not Applicable
d) Data Analysis and Probability	Not Applicable
e) Algebraic Thinking	Little or No Evidence
2) Addresses content-specific enduring understandings from the related Program of Studies standards.	Strong Evidence

3) Addresses content-specific skills and concepts from the related Program of Studies standards.	Moderate Evidence
4) Content addressed is current, relevant and non-trivial	Strong Evidence
5) Provides opportunities for critical thinking/reasoning	Strong Evidence

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

Strengths: content is not only current and real world but useful knowledge for all students; every chapter has an emphasis on critical thinking skills

Weaknesses: algebraic thinking is more implied than explicitly required (this, however, is appropriate for this class)

B. Functionality & Suitability — Moderate Evidence

1) Suitability — **Strong Evidence**

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality — **Moderate Evidence**

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community
- Interconnections among mathematical topics

3) Connections to Literacy — **Moderate Evidence**

- Employs a variety of reading levels and is grade/level appropriate
- Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- The text is engaging and facilitates learning
- Embedded activities enhance the understanding of the text
  Note: may apply to either student or teacher editions

4) Connections to Technology — **Little or No Evidence**

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data
- Embeds web links as a mathematics resource.

5) Support for Diverse Learners **Little or No Evidence**

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties
  Note: may apply to either student or teacher editions

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Strengths: content addressed is applicable to all students free of bias; multiple representations with clearly explained diagrams, charts, and tables; multiple opportunities to integrate reading and writing

Weaknesses: vocabulary is presented but students are not given opportunity to work with the vocabulary at various levels; technology is absent; not accommodations for differentiated instruction of any kind

C. Supports Inquiry and Skill Development — Moderate Evidence

1) Promotes Inquiry, research and Application of Learning Moderate Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions, formulating authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development Moderate Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

Strengths: several opportunities in each chapter to develop skills in various ways; multiple opportunities to include research

Weaknesses: critical thinking skills at high levels of thinking do not appear to be required, "critical thinking" sections often include lower level questioning; technology absent from text

D. Supports Best Practices of Teaching and Learning — Moderate Evidence

1) Engages Students — Strong Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction — Little or No Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Strengths: activities are relevant to the real world of all students; activities utilize forms actually used in the real world (ie. Check ledgers, W-4 tax forms, 1040 forms, etc.); opportunities for students to gather information relating class content to real life work experience

Weakness: no assessment supporting differentiated instruction is addressed in teacher edition; textbook exercises, reviews, and chapter quizzes are all that are present

E. Has an Organization/ Format that Supports Learning and Teaching — Moderate Evidence

1) Organizational Quality — Moderate Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence

- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) Little or No Evidence

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Weaknesses: no use of different forms of media; no glossary; durability of a spiral bound text is questionable

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

Little or No Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Only free with purchase item is a Testing CD. CD contains both a student and teacher edition of a test for each chapter.